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## ANALYSES, &c.

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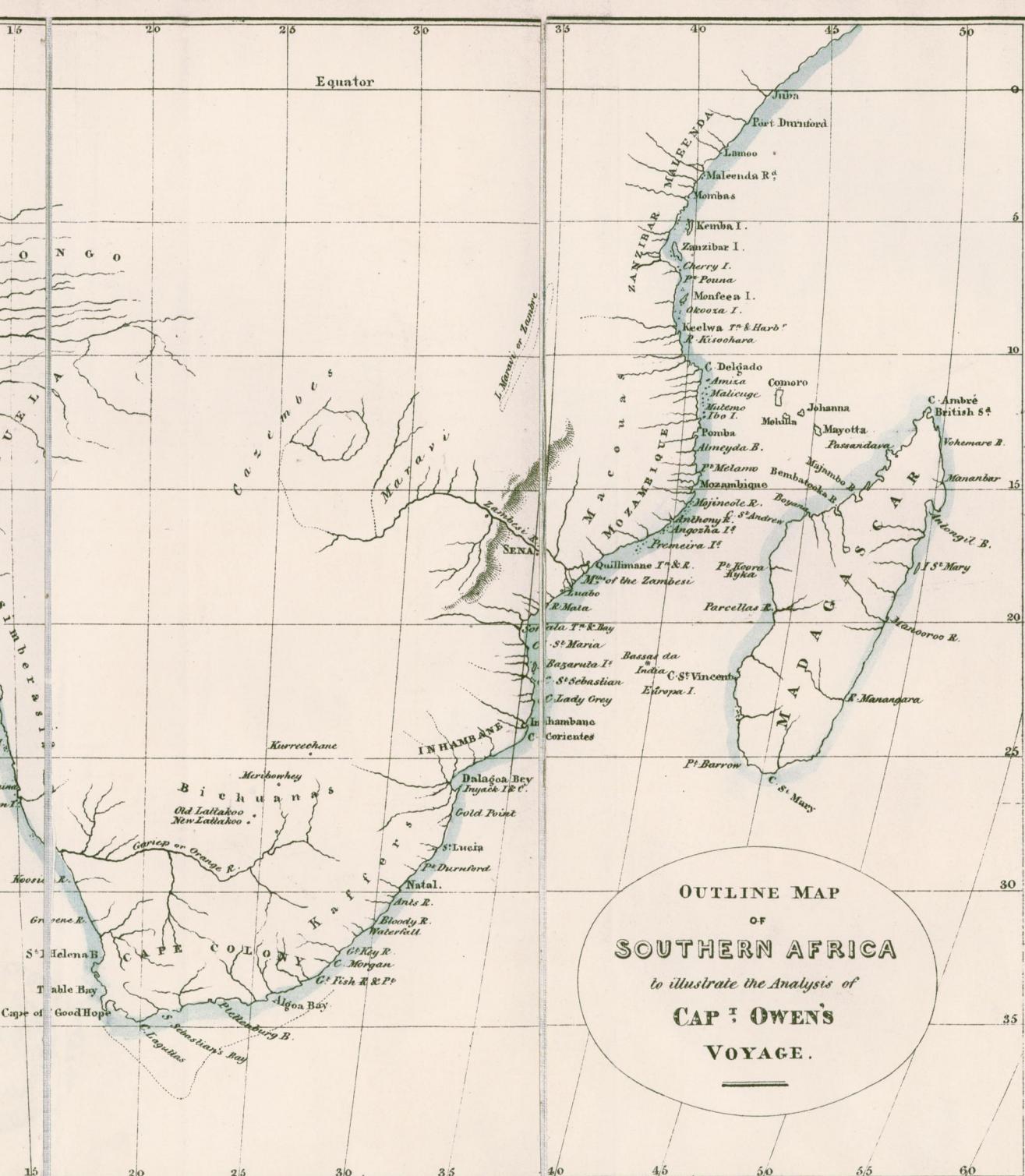
I.—*Narrative of Voyages to explore the Shores of Africa, Arabia, and Madagascar.* Performed in His Majesty's Ships Leven and Barracouta; under the direction of Captain W. F. W. Owen, R.N. By Lieutenant Wolf, R.N.

IN the autumn of 1821 an expedition was fitted out at Woolwich, to explore the eastern coast of Africa, the island of Madagascar, and the shores of Arabia. It consisted of the Leven, ship-sloop, of 26 guns, commanded by Captain W. F. W. Owen; and the Barracouta, 10-gun brig, Commander William Cutfield. Whilst fitting, experiments were made on the flight of rockets, as a method of ascertaining the difference of longitude between two places. A 32-pound rocket ascended 6000 feet; 24-pound, 4500; half-pound, 2400. The 32-pound rocket was seen a distance of fifty-five geographical miles.

A botanist (Mr. John Forbes), paid and provided by the Horticultural Society, was embarked; and having completed all their equipments, the expedition left England on the 13th of February, 1822, and arrived off Lisbon on the 23d. The object of this visit was to obtain directions from the government to the Portuguese African colonies, to afford the expedition every assistance; which was most freely done. Hence they proceeded to Madeira; and, on leaving that island, made a correction in the longitude of its western point to  $17^{\circ} 13' 9''$  W. Having touched at Santa Cruz for refreshments, they arrived in Mordeira Bay, Island of Sal, and arranged a rocket experiment for measuring the meridian distance between Sal, St. Vincent, and St. Nicholas; the rockets were fired from Monte Gardo, on the last-named island. This failed from the dense haze, which, hanging over the low land, prevented the rockets from being seen by the parties on Sal and St. Vincent; though to those elevated on the summit of Monte Gardo the night appeared favourable.

Mr. Forbes says, 'Monte Gardo is composed entirely of volcanic soil, so fragile and porous, that when taken up in lumps they fall to pieces with their own weight, like cinders loosely caked together. It is well clothed with vegetation even to the summit; the euphorbia balsamifera growing to the height of





3700 feet above the sea, but no higher; the bupthalmum sericeum, and some others, quite to the top. The height was ascertained by barometer to be 4380 feet; the thermometer being 45° at night.

The Leven had meanwhile proceeded to Porto Grande, where all the parties having again rendezvoused, and not being able to get a supply of water there, they sailed for Tanafal Bay, St. Antonio, which is described as the most convenient bay in the whole group. "From the high mountains over the bay a small stream descends, which is never dry. On the first level spot a large pond has been formed as a reservoir, with a sluice to conduct it to the beach below." Captain Owen remarks on the precipitous nature of its shores, falling suddenly from thirty-five fathoms to no bottom with sixty fathoms of line; and indulging in the comparison between an island and an iceberg, supposes that the base of this "immense mountain" may be three or four miles deep—the data being the mean height of the island, taken at 1500 feet above the surface. The orchilla moss is the principal or only article of trade. The ships touched for a day at Porto Praya; and on the 25th April made the Martin Vas Rocks: the following day, coasted the shores of Trinidad, which appeared to them a mass of rocks. As regards its longitude, Captain Owen differs forty-five miles from the position assigned it by Pérouse; but corroborates the assertion of that navigator as to the non-existence of Ascensaõ. Having vainly endeavoured to find this island, the expedition made sail for Rio Janeiro, where they anchored on the 1st May. Here they purchased a small vessel of one hundred and sixty tons, which was called the Cockburn, to serve as a tender. The vessels refitted, the boats were employed in the survey of the harbour, and various astronomical observations were made.

On the 9th June, they left Rio Janeiro, and arrived in Simon's Bay on the 8th July. The Cockburn suffered much in her passage from Rio, and as it was found that her repairs would occupy much time, Captain Owen ordered the Barracouta to proceed, coastwise, to Algoa Bay, determining the position of different points in the way. Kaffre interpreters were also embarked; and she was directed to join the Leven in Algoa or Delagoa Bay.

The delay at the Cape was improved by surveying the whole peninsula of the Cape and the shores of False Hout and Table Bays. And during the same period, the Heron was sent by Captain Owen to search for some of the numerous dangers said to lie off the Cape, the result of which cruise may be considered decisive against the existence of the Telemaque and other shoals. "The Cape peninsula may be said to be composed of two mountainous tracts, separated by a narrow isthmus of low sandy plains.

The northern tract is composed of the famed Table Mountain, that of Constantia, and several others of less note, and contains many valuable estates ; while, on the southern range, from Hout and Fishhook Bays, there is not one estate valuable for its productions, although the land is equally capable of improvement in every point of view."

There are three whale-fisheries established in Fish-hook, Kalk, and Gordon Bays ; but they have proved destructive to the species. The great bank of Lagullas is equal to that of Newfoundland, and would probably be as productive a fishing establishment as any in the world,—salt being extremely abundant, and many desirable situations existing along the coast for fishing towns.

The Barracouta was thirteen days tracing the coast as far as Port Elizabeth, in the Bay of Algoa ; which name is applied to all the country between Capes Reciffe and Padron. The former is a low point of land, composed of rocks and sand-hills ; the latter once had a pillar standing on it, which was erected by Bartholomew Diaz in 1486.

About three miles north of Cape Reciffe is the new town of Port Elizabeth. The Dutch colony extended no farther than the Camtoos river (forty or fifty miles westward) ; and although there are some scattered farms beyond that river, all the regular settlements eastward of that point have been undertaken by Great Britain.

Port Elizabeth, so called after the lady of General Donkin, is the best-sheltered spot on the coast for six hundred miles from the Cape. The principal establishment is a dépôt for commissariat stores. There is a whale-fishery about two miles from the town.

Near Cape Padron are some small rocky islands, called Chaos, meaning " flat ;" and sometimes also, Bird Islands, from the numerous birds found on them. They are famous for two events—the termination of the voyage of Bartholomew Diaz, and the loss of the Doddington, East Indiaman.

Having remained in Algoa Bay a week, the Barracouta proceeded to trace the coast eastward, and ultimately rejoined the Leven, in English River, Delagoa Bay, on the 17th October.

" All the country east and northward of the Camtoos River was formerly inhabited by a race of negroes very distinct from the Hottentots, and who appear to have peopled it from the northward, generally by the interior, whence they have spread towards the west. " These negroes were formerly termed by the Arabs and Portuguese ' Kaffers,' meaning literally infidels. When the Dutch first colonized the Cape, all the country beyond their settlements was, in conformity with the language of the first discoverers, called the country of the Kaffers, since Latinized into Caffraria."

From the Keiskamana, along the coast to Delagoa Bay, the country is still in possession of several tribes of these negroes (Kaffers), who have been little visited by Europeans. Some Wesleyan missionaries have attempted to penetrate, but failed from the prejudices and cruelty of the natives. The sea boundary of this country is varied and interesting, presenting a diversity of hill and meadow. Caffraria is divided from the interior by a range of mountains, some nearly six thousand feet high ; but the coast is deficient in harbours : some of the rivers, however, might be made to answer the purpose by clearing the bars.

The Kaffers have no fixed towns or villages, their kraals, as they are called, being scattered all over the country. They are described as being at the very lowest in the scale of humanity.

Delagoa Bay is a large bight, extending about twenty miles in an east and west direction, from Cape Inyack to the entrance of English River, and twenty-two miles to the southward of this line. Three considerable rivers fall into it,—the Mapoota, English River, and Manice or King George's River. The Portuguese factory is situated on the northern shore of English River, about three miles from Point Reuben, a bluff cape, two hundred feet high, forming the northern entrance of the river. It has a small redoubt, with a few honeycombed pieces of small ordnance mounted on its mouldering parapets. The garrison consists of eight officers and fifty soldiers, some of whom are negroes. English River may be considered an estuary of the sea, into which, at the distance of eight miles from the entrance, other three rivers, the Temby, Dundas, and Mattoll, discharge themselves, none of whose sources were believed to be above thirty or forty miles distant ; and only one, the Dundas, has fresh water in the dry season. The shores of English River are an extensive mud-flat, covered with mangrove trees far below high-water mark. The water is quite salt, and discoloured by mud, though the depth is sufficient for ships of the largest size. Of its tributaries, the boats first explored the Mattoll : eight miles up, the mangroves were succeeded by forest trees, and the swamps by meadows. At this spot they were near its source, which is an extensive marsh ; the breadth was decreased from nine hundred and sixty feet at its mouth, to less than eighty ; and the depth from sixteen to eight feet. They next explored the Temby, skirted on both sides by putrid swamps and mangroves ; but, like the Mattoll, as they advanced these gave place to fairer scenes. They ascended this river forty-six miles (including sinuosities), where a barrier of trees, fallen from the lofty banks, rendered farther advance impossible. In descending the stream, the boats were attacked by a party of Hollontontes, but beat them off, having one man wounded by an assagaye. Subsequently, the Dundas River was

explored nine miles up, when they came to a ford, beyond which the river still continues a few miles. The shores resemble those of the other rivers, and they all abound in hippopotami.

A free traffic was entered into with the natives in poultry, vegetables, eggs, spears, hippopotamus tusks, &c., for knives, trinkets, and buttons. The custom of tattooing is universal, each tribe however having its distinctive mark. They shave their heads, leaving patches of wool in ridiculous shapes: and some of the tribes have the custom of filing the teeth. They also indulge in smoking to such an excess as to produce violent coughing, profuse perspirations, and great temporary debility. Their arms are assagayes and spears, the only difference between which is that the former are light and thrown like javelins, and the latter are stronger for thrusting. They are also provided with oblong shields of bullock's hide. They manufacture spirits of two different sorts, one from maize and millet, the other from a fruit resembling the guava; the former is the most potent.

The mapoota is much cultivated in all eastern Africa—the oil being considered equal to that of olives. The plant is as tall and rank as hemp; is extremely productive, having numerous pods throughout the stem, and is found in a wild as well as a cultivated state. Sweet potatoes, pumpkins, onions, maize, and millet are cultivated. The following birds were seen in Delagoa Bay:—pelican, white crane, adjutant, kingfisher, toucan, spoonbill, flamingo, curlews, turkey-buzzards, hawk, duck, goose, guinea-fowl, pigeon, dove, loxia, and many small birds of beautiful plumage.

The river Manice, or King George's River, was also explored nearly fifty miles; its direction is north, running nearly parallel to the sea-shore; its water is fresh close to the mouth; and the current runs in many parts two and a half miles an hour. After passing the islands at the entrance, which were swampy and covered with mangroves, and sand-hills thrown up by the sea, they came upon a more cultivated territory, thickly peopled, with a rich soil, and the natives living in abundance and comfort. Rice appeared the principal production, and that so abundant as to enable them to carry on a lucrative trade with the people of Temby. Captain Cutfield obtained an interview with a party of Hollontontes, who were on a predatory expedition against the natives: as our party approached, men with long white rods cleared the way, by striking the shins of those within their reach. The men are jet black negroes; the women, of a lighter shade. The costume of the chiefs was warlike, graceful, and dignified; that of the women, modest and becoming. They wore kilts, formed from stripes of hide; with ornaments on their arms, round their waists, and ankles, large brass rings in their ears, and caps on their heads made of hair and feathers.

During the stay of the ships at Delagoa Bay, they suffered severely from the fever, which made its appearance on the 24th October, between which date and the 29th November, the day they left the place, no less than fifteen fell victims, among whom were five officers; and this frightful mortality hastened their departure from the Bay. The unhealthy season is from April to September.

The territory around Delagoa Bay is thus divided:—to the southward, Mapoota, or oil country; to the south-west, Temby; to the north-west, Mattoll; and to the north, Mabota. “To the southward of Mapoota, there exists a tribe of warlike Kaffers, called Zoolos; but the people of Delagoa call them Hollontontes, doubtless a corruption from Hottentots, as coming from the south, which is considered their country. This tribe some years since subjugated Mapoota, and are the terror of the country.”

From Cape Inyack (or Cape St. Mary), the ships began to trace the land to the southward. “The coast is a continued tract of sand-hills, from fifty to five or six hundred feet high, with a few black rocks, whose appearance is rather anomalous, for from Cape Bajone, near Mozambique, to the river St. Lucia, there can hardly be found a stone anywhere near the sea, except the coral reefs of the Angosta and Bazaruta Islands, a small rock off Cape Corrientes, and this spot near Lagoa River and Cape Reuben. The interior of the whole distance from Cape Inyack seemed a low, level country, with knots of trees, like park land. All the rivers are blocked up in the dry season.

“A ridge of mountains takes its rise in about 29° S. (Point Duniford), and striking directly to the westward, increases in height and magnitude as it advances into the interior. It there appears to run parallel with the coast to the southward, even to the confines of our colony. The mountains are from three to six thousand feet high, and separate that most beautiful and fertile tract usually known by the name of Natal from the surrounding countries.”

Captain Owen, in standing for Madagascar, passed over the spot assigned to the island called Juan de Lisboa, which he seems to think the same with Bassas da India.

On the 22d December, the ships anchored of Isle Madame St. Mary, which is thirty-one miles long, N.E. b. N., and from two to three miles in breadth. Its surface presents a succession of hills, from two hundred to four hundred feet high, with deep and, in general, narrow vales, thickly covered with brush and underwood. Twice the French formed a settlement on this island; the first time, the climate obliged them to abandon it; the second time, they were all massacred by the natives. In

1821, they again took possession, but suffered severely from the climate. Isle Madame, a low coral islet, constitutes their citadel, to which they retire every night for safety. The harbour is small, but deep, sheltered from all winds, and has a good supply of fresh water. The natives are short, rather darker than mulattoes, with low foreheads, broad and flat countenances, large eyes, and capacious mouths. They all had long hair, but crisped, worn by the men in knots, without regularity, but by the women neatly divided into seven, nine, or eleven squares. The men generally had no clothing but a piece of native cloth about the loins, and hats of basket-work, in a semi-globular form ; but the women exhibited some taste in their costume, wearing blue spencers with long sleeves, fitted tight to the body, and ending just below the bosom, where the skin was visible between it and two pieces of cloth, the one serving as a petticoat, the other as a gown. A few had ear-rings, but no other ornaments ; and both sexes appeared particularly careful of their teeth, which they clean with snuff. The women are cleanly, and anoint themselves with cocoa-nut oil. Their canoes are small, of the common form, and delicately made, yet they venture far from the land, and will attack whales, which they kill by means of drags to the harpoon line.

The fan-palm is very plentiful, and invaluable to the inhabitants ; houses are entirely constructed of it, the stems serving as supporters, the leaves forming the sides and roof. There are several looms for weaving cloth, made of the fibres of the sago-palm leaf, which is extremely durable ; the natives also traffic in shells, wax, and turmeric. Beasts and birds are neither numerous nor varied ; but there is an abundance of fish and vegetables, which are the principal subsistence of the inhabitants. The soil is exceedingly fertile, and would have produced all the fruits of a tropical climate. Chastity is no virtue at Madagascar, and is unknown after nine or ten years of age. The black population of St. Mary's is from twelve to thirteen hundred, a portion of whom are slaves to the rest. They pay no duties to the French, and are governed by their own laws.

On the 8th January, the ships left St. Mary's, and arrived at Johanna on the 22d. The object of touching here was to procure supplies, which they did in great abundance. A heavy surf renders landing dangerous, the natives using canoes with outriggers on each side. The inhabitants are rather below the usual size, delicate, yet well-formed, their expression pleasing, and their complexion lighter than the mulatto. The men are clothed in the Turkish costume, and Arabic is the language spoken.

From this, after surveying from the Querimba Islands to the southward, the ships anchored at Mozambique. This harbour is five and a half miles broad, and six long, with three considerable

rivers at its head. The anchorage is rendered secure by three islands, on the centre one of which stands the town. They are of coral, and very low. Vasco de Gama touched here on his voyage to the East Indies ; and not long after it was taken possession of by the Portuguese, who, in 1508, built Fort San Sebastian, which is quadrangular, very extensive, and containing within its walls a chapel, barracks, prison, tanks, and storehouses, with sufficient space for manœuvring a large body of men. The harbour is farther defended by four other small forts. The garrison consisted of about two hundred black soldiers. The place is fast sinking into insignificance, and is now reduced from its ancient vice-regal splendour to poverty and desolation : it is still a bishop's see. In 1769, the Arabs were expelled this place, as well as Sofala and the settlements on the river Zambezi. The population at this time amounted to about six thousand—Portuguese, Canareens, Banyans, free coloured people, and slaves ; the former the most limited, the latter the most numerous. It is a mart for slaves, and a small quantity of ivory and gold dust. The northern shore of the main is the only part cultivated for the maintenance of its population, the Arabs supplying the rest. The Portuguese jurisdiction does not extend ten miles in any direction ; the natives will trade with them, but will not suffer them to enter the country. The governor is elected every three years, and his salary is so small, that he is compelled to enter into mercantile speculation, in which his authority supplants the regular trader. Mozambique is at times very unhealthy ; bark is the only remedy employed by the natives—bleeding is never resorted to. There are no beasts of burden, all the work is carried on by slaves.

Leaving Mozambique, the shoals of Magnirah and St. Antonio were examined ; the current was found to set strong to the southward, near the edge of the coral banks ; and the Leven anchored off Angosta River, which might be made practicable for large vessels. The country is extremely fertile. The Angosta Islands are all of coral, more or less wooded, and abounding in fish and turtle, as well as the most beautiful shells and corallines.

The Barracouta having left the Leven at Mozambique, proceeded to the southward, surveying alongshore, which is thus described :—“ From Mozambique to Bazaruta Islands, the coast is bounded by a bank, from twelve to fifteen feet in length, covered with bushes ; through which, in various parts, the sandy formation is visible. Trees are scarce, and grow principally on the water's edge. The rivers are innumerable, but few are of any importance ; the boundary of the river-water was perfectly defined by its light green colour contrasting with the deep blue of the surrounding ocean. So great is the rush of the floods from the various mouths of the river Zambezi, that four miles from the land

the water is perfectly fresh. The interior is an extensive morass, of considerable depth, quite impassable, being covered with grass six feet above the water, and emitting a very disagreeable and noxious vapour.

The bank off Cape Bazaruta is the site of the famous pearl-fishery of Sofala, and hence these jewels are supposed to have been carried up the Red Sea together with the gold of Ophir.

Continuing the survey, the Leven anchored in English River on the 1st March, where they found the Cockburn tender had completed the survey of Delagoa Bay, and explored the river Mapoota, nearly sixty miles from its mouth, with the same features as the other rivers before described; in which her crew had suffered so much from fever, that only two were left on board.

On the 16th March, all the vessels left Delagoa Bay, intending to conclude the survey of the coast as far as our colony towards the Cape of Good Hope. To the river St. Lucia, the shores present few pleasing features, but thence it becomes more diversified; the names of the countries were understood, from the Kaffers on board the Leven, to be as follows:—from the Keis kamma River to the Buffalo, Gaika; thence to the Ganooby, Kasloongo; thence to the Kye, Intah; and from the Kye, north-eastward, Magatēga, Batēmbo, Madtellah, and Maheimbo, which is supposed to be about Port Natal.

Passing close to the bar of Kowie River, they observed no indication of a port, as represented by the colonists; and on arriving in Algoa Bay, not being able to procure supplies, and finding it necessary to recruit their numbers, (so much thinned by fever,) they steered for Simon's Bay. Whilst here, an expedition was planned for exploring Zambezi River. A Wesleyan missionary, Mr. Threlfall, embarked in the hopes of being able to penetrate into the country about Delagoa Bay; and three vessels were fitted out by the merchants, to endeavour to open a trade with the negroes in the same direction.

On the 24th July the Leven returned to Delagoa Bay, where, having landed Mr. Threlfall, she remained till the 6th of September, and had much intercourse with the natives. Leaving Delagoa Bay, she anchored, on the 12th, off the Bazaruta islands, and communicated with a new tribe of natives, wearing an apron of goat skin and armed with bows and arrows; they had abundance of cattle, sheep, poultry, and pearls, and wanted cloth in exchange. The pearls on this coast have not been fished for several generations, and they never go more than knee deep for the oysters; fish of all kinds are plentiful. Their sheep are of the Tartar breed, and some good ambergris was purchased. The women wore belts of large beads cut out of the columns of conch shells, and had the upper lip perforated, in which they wore a

piece of ivory or shell, in the shape of a horn, very smooth and about three inches in length.

From this place the Leven went to Sofala, where she found the Barracouta, who had landed the Zambezi party at Quilimane. The riches of this place formerly consisted principally of grain, with gold and silver, but the introduction of the slave-trade has changed this seat of peace and agriculture to one of war and bloodshed, and Quilimane now does not supply itself with corn for its own consumption. The town is built on an unhealthy marsh ; it contains thirty-two houses, inhabited by the Portuguese and Creoles, with innumerable huts for the slaves, amounting in all to a population of about two thousand eight hundred men. The houses are large and substantially built of brick, one story high, with verandas all round ; the huts are small, built of reeds, and thatched with coarse grass ; the door is the only aperture. Fruit and vegetables are various and plentiful ; cattle are small ; a few horses have been imported from Brazil. Lions, tigers, elephants, buffaloes, and deer, are common ; ostriches are unknown, but alligators abound in the river. Quilimane is the greatest mart for slaves on the coast ; they are purchased with dungaree, cloths, arms, gunpowder, brass and pewter, coloured beads, cutlery, &c. &c. Polygamy is universal, as is the practice of tattooing, each tribe having its distinguishing mark—large gashes are cut, and the flesh made to protrude from the wound by constant pinching.

The men are of the middle size, ill-formed, with broad hips, flat noses, woolly hair, and thick lips ; the hair is shaved in a variety of ways ; a small piece of coarse cloth, just sufficient to cover their nakedness, constitutes the clothing of all, except the chiefs, who wear a sort of mantle thrown over the shoulders. They use few ornaments except bangles of brass and iron. They have also the custom of perforating the lip, the aperture being kept distended by rings of brass, leaving the teeth exposed. The climate is unhealthy ; the favourite medicines are bark, rhubarb, columbo root, and marello pill—but never mercury or bleeding.

From Quilimane the Barracouta went to Inhamban, a place not nearly so rich as the former, the river not offering the same facilities for procuring slaves. The trade here is principally in ivory and bees-wax. The river Inhamban, although easy of access, and affording a deepish harbour, is scarcely navigable for a ship beyond the town, eight miles from the entrance, and five miles farther is not even accessible to boats. The Portuguese population, exclusive of the military, was only twenty-five, but the coloured inhabitants are very numerous. The natives will not allow the Portuguese to advance into the interior of the country, although they are ready to traffic with them ; the arms they use

are spears, assagayes, and bows and arrows, the latter being dipped in an active vegetable poison. Inhamban is considered the most healthy of the Portuguese settlements on the coast, but the buildings are by no means equal to those of Quilimane. Sofala, the Ophir of Solomon (supposed), now only boasts of a paltry fort and a few miserable mud-huts, the Portuguese having no influence beyond their guns.

Having completed the survey of the bay, the ships sailed for Mozambique, where, having completed water, the Leven sailed for Bombay; the Barracouta and Albatross to survey the coast from Patta to Mozambique.

From Bombay the Leven proceeded to Muskat, to procure from the Imaum passports for his dominions on the shores of Arabia and Africa. The town of Muskat is situated on the beach, at the foot of a high hill, which completely encircles it, leaving but one pass; in this gap are numerous mat hovels of the native Arabs, who are not allowed to build anything more substantial, for fear they should cover the advance of an enemy. Every height is surmounted by a fortification, apparently capable of resisting an assault, but the place itself may be cut off from the interior and easily blockaded from without. The town is one entire bazaar, the streets are very narrow, partially covered with palm-leaf mats. The houses are generally only one story high, having a flat roof covered with earth. The harbour is perfectly sheltered from all winds but the north, which sometimes brings in a heavy sea. Hindostanee appears to be the *lingua franca*, Arabic is only spoken by the native Arabs. Fine grapes were procured here, with water-melons, pomegranates, oranges, limes, dates, and raisins; lucerne is cultivated as food for horses. Muskat is dependent on commerce for its daily bread, and the sultan uses his frigates as merchant vessels. Pearls may be procured from the fishery of Bahrein, in the gulf, which has, however, been neglected for so many years that it offers an opening for lucrative speculation.

Having procured a pilot and an interpreter, the Leven left Muskat on the 1st of January. The land to the eastward is composed of rugged mountains with little verdure, but the country on the other side is said to be fertile and productive. Captain Owen intended to trace the coast minutely from Muskat to Dafoor, but found that the wind constantly failed him in-shore; he, therefore, commenced at Ras al Had, which is a low sandy point, with a Sheik's tomb at the extremity; the mountains at the back, called Jeebel Huthera, rise to the height of almost six thousand feet. Passing Ras Jino, the coast thence to Ras al Hubba is formed of steep rocky cliffs from thirty to forty feet high; after which it becomes sandy and shallow, with good anchorage and plenty of

fresh water, and continues low as far as the island of Massera, the external appearance of which is very forbidding; yet this is the only place where the date trees bear twice a year. The Leven surveyed the whole outer coast of this island to Aboo Rassas, and then continued her course along the main, passing in succession the shoal cliffs, Cape Isolette, Ras Koariat, and Ras Markass, on the north side of which is a safe little harbour. The great bay of Saūgra is formed by Cape Isolette and Marica; there was not the least appearance of vegetation or animation on its shores, except a few men and huts at Madraka, where the dominion of the Imaum of Muskat terminates, and that of the Sultan of Dhofar commences. The next place to Saūgra is Koorya Moorya Bay, which is extensive and has good soundings throughout; the islands are named Jibly Halnanny, Soda, and Haskee. Soda is the only one inhabited; the anchorage and village are at the north end, where it is said water may be procured. Its mountains are very high, and apparently of volcanic production. The only rivers met with between Muskat and this (a distance of about one hundred and forty leagues) are one at Saūgra and one at Minjy; the cliffs increased gradually as they continued their course, from five hundred to nearly one thousand five hundred feet in height, and the hills of Noss Labout Morbat cannot be less than five thousand feet. Discontinuing the survey of the coast at Cape Morbat, the Leven steered for Soktra, and surveyed its northern shore, passing the bays of Tamarin and Palauseca, and between Soktra and the Sabayna rocks. The inhabitants of Soktra are supposed to be Abyssinians, as they neither speak nor write Arabic. From this they steered to the Island of Abdul Koory, which is about twenty miles long and two broad, composed principally of granite, and resembling Soktra in formation; and anchored in a fine bay at the western point of the mountain on the south shore.

Leaving Abdul Koory they steered for the bold headland of Gardafui, and rounding the peninsula of Hafoon, which appears like an island, ran to the westward about eighty miles, as far as Ras ul Khyle, the whole shore rocky, varying from two to four hundred feet in height.

The coast of Africa, from the Red Sea to the river Juba, is inhabited by a tribe called Somauli, a mild people of pastoral habits, followers of Mahomet, and confined to the coast; the interior is occupied by the Galla, an uncultivated and ferocious set of savages.

Mukdeesha is the only town of any importance on the coast; the harbour is formed by a long reef; the town is divided into two, called Umarween and Čhamgany, the latter being composed entirely of tombs; the former has nearly one hundred and fifty stone

houses, built in the Spanish style. The imports are sugar, dates, salt fish, arms, and slaves; the exports, ivory, gum, and a particular cloth.

To the southward of Juba, to the island of Chuluwan, and perhaps to Delagoa, the coast is inhabited by a race of Mahometan Moors, differing in language, person and character from the Arabs and native Africans; this people are now called Sowhylese. The river Juba is described as rising in Abyssinia, and may be navigated in boats for three months from its mouth; the passage across the bar is narrow, but has plenty of water. The coast and most of the islands to the southward of the river are of madrepore.

The Leven afterwards anchored off the town of Lamoo, which is built in the pure Arabic style, the houses being crammed together as close as space will allow. It has much commerce, and its population is about five thousand souls. In the centre is a large fortress, about a hundred yards square, and surrounded by walls from forty to fifty feet high. The Arab dows on this coast are sharp at both ends, without any timbers, the planks being neatly laced together with coir, and carrying one large sail made of matting. Having received supplies, the Leven sailed for Mombas, where she arrived on the 7th of February, and landed Lieutenant Reitz as commandant, the chiefs wishing to place the whole country under British protection. She then anchored at Pemba, which Captain Owen describes as one of the most fertile islands in the world, abounding in excellent ship timber and luxuriant vegetation; supplies were also abundant. Touching at Zanzibar, Lindy, and Makindany, they arrived off Mizimbaty, a bay formed by the isles of Manakoohangha, but apparently blocked up by reefs. Near the south point of Mizimbaty the rush of water from the great river Rovooma (which, it was imagined, was next in size to the Zambezi) produced an appearance of fresh water. At Tho, they learnt that the Barracouta had only left five days previous, which ship they joined off Mozambique.

It will be remembered that, on the Leven's sailing for Bombay, the Barracouta and Albatross were left to survey the coast from Patta to Mozambique. The island on which Patta stands is bounded by hills, and divided from the main by a narrow sandy creek, navigable only for boats; it appears formerly to have been a place of much greater importance than it now is. When the Portuguese became masters of the coast, they built a castle at Patta as one of their strongholds, but were driven out by the natives, who having been at times independent, at others under the Sheik of Mombas, and again under the Imaum of Muskat, now remain subjects of the latter. The town is small and scattered, the huts are in the Arab style, of an oblong form, standing east and west, composed of reeds and stakes well plastered with mud,

the roof not resting on the wall, but supported by rafters a few feet above the eaves, and projecting far beyond the building. The doors resemble those before described at Lamoo, which place the Barracouta next visited. The costume of the inhabitants consists of a carpet skull-cap with a white embroidered turban, a long white garment reaching to the ankles, fastened round the middle by a piece of cloth, hide sandals, a sabre over the shoulder, and a dagger by their side. The food of the lower class of Arabs consists chiefly of rice, ahol, cocoa-nuts, and a large fish of the bonito species, dried and salted; sherbet and toddy form the beverage of the higher as well as the lower class. Their commerce is principally a coasting trade, for the supply of articles of daily consumption.

Leaving Lamoo, the Barracouta proceeded to the southward, and anchored off the river Ozy, which they learnt was a mile across at the entrance and deep inside, but dangerous of access on account of a bar of quicksand. Just within this bar, on the south side, stands the small town of Sanda, and twelve miles higher up that of Kow; during the rainy season the river rises and inundates the country for many miles. Above Kow, every twelve or fifteen miles, there are large villages, and at the distance of fifteen days poling and paddling is the town of Zoobakey, beyond which the current is too strong for further progress. They next anchored in Maleenda Road. The town has been entirely destroyed, and the territory is at present occupied by the Galla. Having surveyed the Leopard Bank, Captain Vidal steered for Mombas, where he arrived on the 3d of December. The chief was anxious to place the fort under the British flag, in which Captain Vidal declined interfering, but, as before stated, it was subsequently done by Captain Owen.

There is not a more perfect harbour in the world than Mombas, with good anchorage, well sheltered, shore steep-to serving as wharfs, and a rise and fall of twelve to fourteen feet. The city is built on an island three miles long and two broad, surrounded by cliffs of madrepore which might be rendered impregnable. It has great commercial facilities, and if occupied as a military station would be very serviceable in promoting the civilization of central Africa.

The town is divided into two parts, one inhabited by the Arabs, the other by the Sowhylese, all in a wretched state. From Mombas the Barracouta ran along the coast to Pemba, which island is thirty miles from north to south, and eleven from east to west; it is not in any part more than two hundred feet above the sea, of a coral formation, but covered with a rich and productive soil. The shores of the main land opposite are low, but covered with trees, and apparently fertile; the coast is sandy, with cliffs of coral

in some places, while parallel to it, at the distance of four or five miles, there exists a line of sand and coral reefs with deep water between and inside, but to seaward the depth is nearly unfathomable.

After passing the river Pangany they steered for Zanzibar, an island nearly twice the size of Pemba, which in other respects it closely resembles; it produces abundance of grain and sugar. The islands and reefs between Zanzibar and the main form numerous harbours, safe and not difficult of access; but at Zanzibar itself, there is not one land-locked port. The town and fort resemble those described at Lamoo. Opposite Zanzibar the coast is low, but lined with villages, which are conspicuous from the cluster of cocoa-nut trees in the midst of which they are built. The climate is particularly fatal to Europeans. At no place were supplies so good and cheap as at Zanzibar,—moderate sized bullocks were five dollars a head, sheep of the Tartar kind cheap, two dozen fowls for a dollar, and sugar at twopence a pound. Latham's Island was visited; it is of coral formation, oval shaped, about a thousand feet long, and ten or twelve feet high, accessible only on the south-west side by a small shelving beach of coral sand; the surface is composed entirely of the excrement of sea-fowl, and the island is literally covered with them.

Quitting Zanzibar, Captain Vidal proceeded to the survey of Monfèa, a long and narrow island, lying nine miles from the main, and rising abruptly from an unfathomable depth, covered with trees, and surrounded by a labyrinth of shoals and islets. The channel between it and the main is so thickly studded with coral shoals, as to be almost impassable for vessels. From this they went to Great Quiloa (Keelwa), one of the finest ports in the world, but without anchorage outside, as the depth is unfathomable: the extensive lagoons inside abound with hippopotami, and the forests with leopards. Previous to the arrival of the Portuguese, who captured and burnt the place in 1505, Quiloa was one of the most considerable Arab possessions; the climate obliged the Portuguese to abandon their conquest, after having erected a fort, but the town never again rose to its former state; a miserable village occupies the site, and wretched hovels are blended with the ruins of the once opulent city: it is now under the Muskat government. Prosecuting the survey to the southward, they anchored off the river Lindy; on the northern entrance of which is a small straggling town, lying very low, and amid swamps. About eight miles up, the river branches into several small channels, forming an archipelago of low islands, covered with mangroves; on each side, the land rises into lofty hills, covered with verdure.

The next anchorage was Mikindany Bay, at the bottom of

which is a small river and an extensive basin, with a deep but narrow and winding entrance. On the side of a steep hill is a fine castellated Portuguese building, kept in neat order, and apparently garrisoned.

Coasting along a low, rocky, unfathomable shore, and passing Cape Delgado, they anchored at the Querimba Islands, which lie immediately to the southward. They are all low, formed of coral, with long flat reefs extending eastward. The harbours are excellent; but Ker and Querimba are the only two inhabited. The town of Tho is the frontier Portuguese post to the northward, and is more strongly fortified than the generality of their possessions. It contains one large fort, built in 1791, and two smaller ones. The garrison consists of two hundred soldiers, either creoles or negroes.

Pomba Bay is one of the finest harbours on the coast; the entrance is between two rocky points, one and three-quarters of a mile across, and opening into a basin, nine miles long and six broad, with sufficient water for the largest ships. The Bay of Almeyda also, which they next visited, offers a safe and commodious anchorage, sheltered by the shoals of Mamabala and Indujo. Falling in with the Leven, both ships repaired to Mozambique, to refit and re-victual.

From this, the Leven, touching at Delagoa Bay, where they found most of the garrison had been murdered by the natives, sailed for the Mauritius, and thence returned to the survey of the eastern coast of Madagascar. The first place at which they commenced was the harbour of Tamatave. The channels into the anchorage are narrow, and formed by coral reefs: the town has no more than eighty habitable dwellings, surrounded by palisades; the whole population amounting to about two thousand. Large fat bullocks cost three dollars and a half. The next place they visited was Foule Point, where they procured a pilot, and surveyed the coast as far as St. Mary's, Isle Madame, which they found greatly improved since their last visit. Hence they proceeded, examining the coast to Port Choiseul, at the bottom of Autongil Bay. From Port Tangtang, northward, the coast assumes a bolder aspect; the hills, which before were distant, here rest upon the sea, forming several stupendous rocky promontories. A boat, which ascended the Maransectzy, found the banks of the river low and marshy, but covered with valuable trees; the gum-copal, mango, and banana are very plentiful; also the water-melon, and the modesta and warra plants. They saw some huts and a great quantity of cattle; and the natives were preparing the land for rice, in the same manner as at Java and Sumatra. The native huts are raised on posts, eight or ten feet from the ground. English cottons, woollens, arms, and ammunition may be readily

and profitably exchanged for bullocks, gum copal, and other native productions. A fish, called the humpback, abounds on this coast till August, when it is driven away by the sperm whales.

Continuing their operations along the coast, they arrived at Diego Sauriez Bay, or British Sound, one of the finest harbours in the world. At the village, called Prauguromoodo, the natives are a tribe of the Seclaves ; they are miserably poor, and have nothing but bullocks. Their huts are very low, the roofs composed of palm leaves, and the doors not larger than those of a pig-stye ; the sleeping-places are of bamboo, raised about three feet from the ground. A species of guinea-fowl was seen here, with a long tail, marked like the argus-pheasant, but the plumage downy and more beautiful. The substratum of the surrounding hills is composed of sandstone and columns of madrepore ; the more distant appear to be of volcanic production. The place abounds in shells, particularly the harpa.

Having concluded this survey, the Leven proceeded to fix Cape Ambré, the most northern cape of Madagascar, and then returned to Isle Madame, and continued surveying the coast in the vicinity, looking into all the bays and harbours, and passing many islands, most of which are well wooded, but others mere rocks of madrepore. The Seclaves live on the coast, for the purpose of fishing, during the northern monsoon ; but retire into the interior, to till the land, during the southern monsoon. Touching at Johanna and Mozambique, the Leven arrived at Mombas, where she fell in with the Barracouta, which vessel had been sent, to learn tidings of the expedition, to Senna, which proved melancholy indeed. On their arrival at Quilimane, they learnt that the three officers had died, and their two black servants were waiting at the town. Mr. Forbes died the day previous to their reaching Senna ; Lieutenant Brown at Senna ; and Mr. Kilpatrick, the assistant-surgeon, returned as far as Chaponga, where he also fell a victim : their passage, including stoppages, occupied from the 23d July to the 17th August,—five days on the Quilimane to Boca do Rio, where they disembarked, and travelled across a flat, well-cultivated country, abounding in villages, till they reached the Zambezi, at Marooro. The torrent was so impetuous over the numerous sand-banks, that the party could only advance at the rate of one mile and a half an hour. The banks were one unvaried line of rushes and long grass.

The plain on which Senna stands is covered with tamarind, mango, and cocoa-nut trees ; the town is interspersed with stagnant pools, and has only ten houses of European structure. The river, as far as the eye could reach, wound majestically through the plain ; and in it gold is found pure in the alluvial deposit. Gold, ivory, slaves, and tiger skins are the principal exports ; for

which they receive cottons, woollens, arms, ammunition, spirits, and groceries. The garrison of Senna consists of three officers and sixty privates, of all colours and countries. The town of Tete, said to be far superior to Senna, is distant sixty leagues, but owing to the rapidity of the current, six weeks is considered a good passage for canoes; the village of Zumbo is fifteen days, and that of Zumboa twenty days, beyond Tete.\*

Having picked up the Albatross, which had been surveying St. Augustin and Tullia bays, the Barracouta commenced the survey of the coast to the northward. The coast to Boyanna Bay is almost an unvaried low, marshy plain, covered with stunted trees, irrigated by barred rivers; bounded by a line of sharp-pointed coral masses, uncovered when the tide is out: and the coral islets and reefs that skirt the coast are numerous and dangerous. The islands seldom exceed a mile in circumference; and it is remarkable that all the reefs extend to the southward.

The northern half of the west coast of Madagascar is indented with bays, harbours, and rivers, admirably adapted for commerce; these are, however, all neglected, with the exception of Bembatooka, which is the estuary of several rivers: it is seventeen miles deep, and three and a half across at the entrance; inside it is nearly eight, but about midway the shores approach, leaving a narrow channel, through which the water rushes, and has scooped out an abyss of sixty-three fathoms in depth. The shores are low and covered with mangroves. Bembatooka itself is an inconsiderable village; but Majunga, on the north side of the bay, is a large town. The inhabitants are composed of Arabs and Malegashers, and the style of buildings the same. The slave-trade was the principal source of wealth, but this had been abolished by Radama, who had recently conquered the place: they had an extensive traffic in bullocks, with the Americans particularly, who jerk the beef, preserve the tallow, and cure the hides on the spot. There is also some commerce in bees-wax, rice, and gums.

The following information was gained relative to Radama, the celebrated chief of a large portion of Madagascar, then alive, but now unfortunately dead. He was a man far above his countrymen in exemption from prejudices, anxious to learn, and resolute in carrying on his determinations. He willingly relinquished an annual revenue of sixty thousand dollars, to meet the views of the English on the abolition of the slave-trade; receiving a supply of arms, ammunition, clothes, and money, from England, to the amount of about ten thousand dollars annually, instead. His good faith in treaties was always maintained. The order of succession to the crown, though hereditary, was singular, arising from the laxity of morals: the king's sister's eldest son was the heir apparent, but this

\* See the particulars of this Expedition more at length, vol. ii., p. 136.

custom Radama abolished. Plurality of wives was allowed, and it was expected that the king should have twelve,—seven or eight of his own choice, the rest his father's wives, who are only nominally his. He was also obliged to call a kaba, or meeting of the chiefs, before he could undertake any act of importance; but by proper management of his council, Radama contrived to gain all his ends, and to abolish many superstitious customs.

The garrison of Bembatooka consisted of a vast assemblage of huts, surrounded by a lofty bamboo fence, about half a mile in circuit, with two entrances towards the town, and another to the country. The discipline of the troops was strictly kept up after the European manner. Little information could be gained respecting Tarnanaruvo, the capital of Ovah; its situation is not certain, but appears to be nearly west of Tamatave, forty leagues in a direct line from the coast, on the ridge of mountains which run through the centre of Madagascar. It is described as being of considerable extent, and the houses of the higher classes constructed and furnished in a superior style. Gold and silver chains, of beautiful workmanship, are manufactured there, which are used as current money; also excellent silks, which are dear. The population of Ovah is immense, consisting of mulattoes and blacks, the former of whom appear to be considered superior. Some missionaries have established seminaries, and greatly improved the education of the natives. The commerce of the east coast of Madagascar, in grain, bullocks, and cloth, is considerable, but all carried on in foreign bottoms.

The survey was continued towards Boyanna Bay, where there are two rivers, each affording capacious harbours; the northern is termed Makumba, and has a small island off it. Hence, staying one day at Majunga, the ships passed on to Majambo Bay, which is a fac-simile of Bembatooka. Here they found an Arab dow jerking beef, which is done by cutting it into narrow strips, and suspending it in the air till it becomes hard and dry, without using salt. It appears that Majambo was formerly inhabited by Arabs, and many of their tombs are still visible, blackened by age.

Continuing along-shore they anchored at Nareenda Bay, the islands at the north entrance of which afford excellent harbours. Sancasse, the largest, is inhabited. Opposite to these islands the river Luza, after forming an extensive lagoon eight miles inland, discharges its waters into the sea, through an extremely narrow and deep channel. At Nareenda the stupendous peak of Matowla was first seen. After leaving this place, they came to a group of lofty volcanic mountains, to which, in honour of Radama, they gave his name. Beyond these is the high and conical rock of Keyvoondza, situated, with two or three more islets, near the west

point of Passandava, the broadest and deepest bay on the west coast of Madagascar; a village of the same name lies at the head of the bay, and consists of a few half-ruinous huts; the language differs from the rest of the Malegash. Near this village the mountains that surround the stupendous peak of Matowla take their rise; they are of volcanic formation.

They sailed again for the West Minnow group, which consists of twenty-seven islands and rocks, basaltic and lofty, except two or three that are of coral, and low. Having examined the East Minnow, the Barracouta sailed for Mombas to rejoin the Leven, where they learnt that Lieutenant Reitz, who had been left governor, had fallen a victim to the fever, caught while on an expedition up the Pangany.

The two ships again parted company, the Leven for the Seychelles, the Barracouta to survey the labyrinth of rocks and islands between Juba and Kwyhoo Bay. These amount to nearly five hundred, many measuring from two miles and a half to four and three-quarters in length, but the majority are of inconsiderable size, rising abruptly from and overhanging a narrow line of reefs; about two miles outside these islands is a coral bank, which renders the approach to the coast dangerous. Throughout the whole extent of these islands, to which the name of Dundas was given, (a hundred and fifty-four miles,) there is but one secure retreat for vessels at all times, which is at the entrance of a river now called the Durnford. A boat ascended this river seven miles, and found the country capable of the highest cultivation, varying from a light red to a dark fine soil; two villages were seen on the south shore, apparently inhabited by the Gallas, a savage and treacherous people. Besides this, there are two other rivers, Shamba and Toola, but with shallow entrances. The Barracouta, having lost her anchors, went to Lamoo, where she found some large trees of the mangrove species, uncommonly hard, and of a specific gravity heavier than water, some upwards of seventy feet high, and one and a half in diameter; with these they constructed a wooden anchor, which answered as well as an iron one. The squadron subsequently joined company again at Mombas, and then sailed for the Seychelles.

After surveying the low coral group of Corgados Garagos, they stood round Cape Ambré and commenced the coast thence to Cape St. Sebastian, the bays in which were so deep as to lead them to suppose they should find a channel through to the opposite coast. The islets along this shore much resemble the Dundas and Minnow groups, with bold cliffs and luxuriant hills on the main. The country abounds in wild cattle. They next proceeded to examine an extensive and detached bank of soundings, and thence continued to Bembatooka, where they found that the

place had been attacked by the Seclaves, and the town of Majunga burnt to the ground. Hence both ships, after touching at Mozambique, proceeded to St. Augustin's Bay, where they captured a slave-vessel. King Bahbah had died since their last visit, and his subjects, as a mark of respect, had shaved their heads, which considerably altered their appearance. The prize was taken to the Isle of France, and the ships then, after remaining two days at St. Mary's, anchored in Tamatave Bay. In passing Foul Point, however, the Barracouta, being attracted by the report of two guns, stood in to the harbour. The signal had been made by the British resident, there having been an insurrection among some of Radama's subjects, and the object was to prevail on Captain Vidal to transport a body of troops to Point L'Arée, which was agreed to, and the consequence was a complete stop to the rebellion. From Tamatave they touched at Port Dauphin, then doubled the southern extremity of Madagascar, in order to explore further the Star Bank, in doing which they were nearly wrecked. They next anchored for a day at St. Augustin's Bay, and then steered for Delagoa, having examined the long low coral islet of Bassas da India, or Europe Island. Having completed the survey of the outer bar, they sailed for the Cape of Good Hope, stopping in their way at Port Natal, where they were visited by Lieutenant Farewell, R.N., who had settled there in March, 1824, having an extensive grant of land from King Chaka.

At the Cape they were employed making a survey of Table Bay, and thence sailed, in prosecution of orders, on the survey of the western coast of Africa. The first anchorage was Walfisch Bay, at the head of which is a fine port; they here communicated with some Hottentots, fac-similes of the prints in old travels, clothed in skins, and the faces covered with soot and grease. They examined Rostra da Pedra Bay, a good anchorage, and coasting along to the northward, the bottom being of a dark muddy sand which turned the leads, anchors, and chain-cables black as if painted, arrived in Great Fish Bay, where they looked in vain for Nourse's River, discovered by the Espiegle in 1824; but it appears from others which they witnessed that they were closed in the dry season, and broad rapid streams during the rains. Passing Capes Albino and Negro, on the latter of which they observed the pillar of Bartholomew Diaz, the Leven anchored in Port Alexander, and thence continued to the northward to Little Fish Bay. The rocks on this coast appear of two or three different kinds, but principally sandstone with petrifications imbedded; others are of primitive or volcanic substances. Farther northward, the land was composed of red earth, intermixed with blue clay and yellow sand; this was the first red earth seen on this side of Africa, most of the eastern coast being of that colour. The

next place they touched at was Turtle Bay, the shores of which are fertile, and appear to be well inhabited, whence to Cape St. Mary's the coast is steep and precipitous, intersected with numerous deep ravines. The mountains from Cape St. Mary to Espeigle Bay are of granite, interspersed with a great quantity of mica and quartz: a cliff, abounding in the former, reflected the sun's rays like a mirror. Continuing their course to the northward, they passed the low sandy point of Victoria, or San Francis; after which they saw many native villages with huts. The country was generally more diversified, the valleys fertile, beautiful, and studded with huts. They next anchored off Benguela, where they procured supplies; and sailed again for St. Paul de Loando. The port and town were anciently much to the southward of their present situation; the former is now blocked up, while the latter is in ruins. The two vessels stood over to Ascension, and subsequently came in on the coast at the Isles de Los; after surveying which, they sailed for Sierra Leone, where they found the tender which had been employed in the river, and all proceeded to the survey of the Bananas, Turtle Islands, Sherborough River, and the Shoals of St. Anne.

Having again visited Sierra Leone for supplies, their next object was the Bijooga Islands, among which they grounded, the ship at low water being left so dry that the people could walk round her. After having got afloat, two boats were sent to recover an anchor, and were attacked by six canoes, with about forty men in each, armed, about half of them, with muskets, the others with spears; but a volley of grape and musketry made them hastily retreat.

From the Bijoogas they sailed to Port Beaver, where the boats were employed surveying the Rio Grande and Bulama Harbour. The native name of Rio Grande is Butolah River; the former appellation being more applicable to the Jeba, which is navigable five miles beyond Bissão. Bulama Harbour is from one mile and a quarter to half a mile broad, terminating in two small branches, running N.E. and S.E. Many small creeks fall into it, whose banks are covered with mangroves to the water's edge; but the country at the back is covered with thick forests of large trees. The country on the right bank of the Rio Grande is called Guinara; and produces gold, ivory, wax, hides, and horses: it is very populous in the interior. The banks of the river are studded with ant-hills, of the form and height of the native huts, giving the appearance of dense habitation.

Bissão is an excellent and spacious port, the site of a Portuguese establishment. After having completed the examination of this part of the coast, the Leven returned to Sierra Leone.

The Barracouta, on leaving the Cape, first touched at Dassen

Island, lying about six miles from the main ; it is one mile and a half long by one broad, bounded by a reef, except to the eastward ; it is the property of a gentleman at the Cape, who derives a considerable revenue from the eggs of penguins and gulls, twenty-four thousand of which are collected every fortnight, and sold at the Cape. The island is absolutely sterile, and formed of rugged masses of granite, without fresh water. They next anchored in Saldanha Bay, the country still rocky and sterile, off Cape Deseada, rising into abrupt craggy eminences and broken ranges of hills. At the southern extremity of Angra Pequena Bay they observed the remains of a cross erected by Bartholomew Diaz. It had been thrown down, probably in search of coins supposed to be buried under it ; the inscription was almost obliterated. In the next one hundred and thirty miles they had passed the limit of the rocky country and came abreast the desert, rising into lofty hills of light-coloured sand, with occasionally a rocky patch and a few tufts of parched grass.

On arriving at Cape Negro, the desert partially ended, the first tree (a palm) for many hundred miles was seen, also a hut and a native ; leaving this, the country continued to improve, though still poor. At Benguela they anchored to survey the bay ; the buildings in the town are erected with half-baked bricks, and mud for cement, the whole coated with a thick plaster of shell lime ; the roofs are alternately covered with boards and a succession of reeds, placed at some little distance apart, so as to admit freely both light and air, but totally to exclude rain. The site of the town is a marsh, full of stagnant pools, and almost inundated in the wet season. The chief defence is a large fort fast mouldering to decay. The population does not exceed three thousand, the majority of whom are either free blacks or slaves. The natives of the interior, it was said, will not permit the Portuguese, or any other people *with straight hair*, to enter their territory. The trade of Benguela, which consisted chiefly of slaves, has greatly fallen off lately. They saw no sheep, but bullocks and goats were in great abundance.

St. Paul de Loando, their next station, is a large city, containing several churches and many private and public buildings, of which, however, a considerable portion are now in ruins. It is also a bishop's see. The better part of the town is built on an eminence, beneath which, along the sea shore, are the hovels of the black population. The town is well fortified ; the harbour is three miles and a half in length, deep, and commodious. The population is very considerable ; the principal commerce is in slaves, ivory, and bees-wax. The market is well supplied, especially with fruit and vegetables ; bullocks and goats are also plen-

tiful. It is the principal Portuguese settlement on the western coast of Africa.

Leaving St. Paul de Loando they continued to the northward, anchoring every night for the purpose of surveying, till they entered the Congo, where they remained six days waiting for a sufficiently strong sea-breeze to enable them to stem the current. At the distance of twenty-five miles from the southern entrance, the Congo is not more than a mile and a half wide, and a little above, a broad sand-bank divides the river into two narrow but deep channels. The banks on either side are low and swampy, principally covered with two different kinds of mangroves, one a low bush, the other a stately tree ; there are also many kinds of palms, two of which bear fruit, one of them poisonous. The natives are perfectly black, but their noses are not quite so flat, or their lips so large, as among the generality of negroes ; the clothing consists of a single wrapper, of dungaree or cloth, round the loins, and umbrellas appear to be the emblems of rank. They wear numerous charms or "Fetiches," in which they place great faith. In the course of the survey, a boat that had grounded on a shoal was attacked by twenty-eight canoes, with four to six men in each, but a volley of musketry caused them to retreat. The great body of water discharged by the Congo has scooped out a channel above Shark Point seldom more than a mile across, but varying from forty-five to two hundred fathoms in depth. The great force of the current, however, appears to be superficial ; it is about four miles an hour. Thirteen miles from the entrance, the water was perfectly fresh, of a dingy red colour ; it fermented in a few days, and remained for some time in a highly putrescent state, discolouring silver greatly, but after four months it became perfectly clear and colourless, without depositing any sediment.

From the Congo the Barracouta sailed for Kabenda, the intermediate coast possessing great variety of scenery, sloping ridges of park land, and valleys abounding in groves of trees, and apparently very fertile. Kabenda, though trading in ivory and camwood, is chiefly resorted to by slavers ; the bay is skirted by numerous huts, and the whole country seems to be densely peopled, the natives resembling the Congo people, but their language being totally different. The adjoining scenery is composed of lofty cliffs, verdant hills, and deep luxuriant vales ; there are no bullocks, but vast loads of wild buffaloes ; sheep are scarce, but goats are plentiful ; also ducks and fowls. They next visited Loango, an excellent and well-sheltered bay, with more varied and interesting scenery than Kabenda ; numerous lagoons exist here, about two hundred feet from the sea, running parallel to the shore. After leaving Loango, the hill scenery was succeeded by a low, woody,

and swampy flat. The coast was shoal as far as Cape Lopez, when it became suddenly very deep, even close to the shore. Cape Lopez is low, swamped, and covered with wood ; the bay formed by it is fourteen miles deep, and has several small rivers and creeks running into it. On the left point of the largest and northernmost is a straggling but extensive town, the houses formed of palm leaves, neatly interwoven upon a slight wooden frame ; this was called King Passol's town. Hence they continued along a low swampy coast till they arrived at the river Gaboon, which combines every facility for trade, the navigation being easy, and having no dangerous bar at its entrance, and the ascent free from danger for many miles. The trade is principally in slaves and ivory, but their mode of barter is very tedious.

Eight miles farther is Corisco Bay, which is thirty-two miles north and south from Cape St. John to Cape Esterias, and fifteen from the islands at the entrance to the river Moonda. The surrounding shores are thickly clothed with verdure, the numerous isles with which it is studded being also green to the water's edge. Except two towns on Cape St. John subject to the king of Corisco, all the other places in the bay are inhabited by Bullamen, who are wild and savage, but exceedingly timid, and inordinately fond of tobacco.

The Barracouta next anchored off the river Camaroons. The intermediate coast was low, covered with trees to the water's edge, and appeared to be thickly inhabited, from the numerous villages, and canoes ; which last were of diminutive size, capable only of containing one person, who, on touching the shore, jumps out and carries the canoe on his shoulder. When approaching the Camaroons, it appears far more considerable than it really is, for within the seven miles space which the entrance exhibits must be included the mouth of the Malembe River, which branches off in a N.E. direction. The best channel is by the western shore, where there are several extensive creeks ; Suallaba, on the eastern point, is low, as well as all the country bordering on the river. At Bimbia, the next river, they were visited by some large canoes, capable of containing fifty men, who plied their paddles with great swiftness and exactness. Being short of provisions, the Barracouta was obliged to repair to Fernando Po for a supply, whence she returned to the Bonny River, and found seven English vessels loading with palm oil, and several slavers. The entrance presents a broad expanse of waters, consisting of the Bonny to the eastward, and New Calabar to the westward. The former is the more considerable, though both can be entered by vessels drawing eighteen feet water ; they are deep inside, and the anchorage is always safe. Bonny-Town is situated on the eastern bank of the river, near the mouth, surrounded by numerous stag-

nant pools. The huts are principally constructed of stakes plastered with mud, and roofed with palm leaves. The superstitions of these people are numerous and extraordinary. The bar of the river having sometimes proved fatal to vessels resorting thither, they consider this the act of some evil spirit, to conciliate whom they make an annual sacrifice of a human being ; the handsomest and finest youth is selected, and on a stated day carried out in a large canoe, attended by the principal men of the town ; he is then made to jump overboard, when the canoes paddle on shore, leaving their victim to his fate. A similar ceremony is performed at the New Calabar. After leaving the Bonny, they sailed to the westward to Cape Formosa, whence they surveyed the coast to Benin River, which is a mile and three-quarters wide, with a bar at its entrance, twelve feet at low water ; a heavy swell breaks over it and renders it dangerous in bad weather ; human sacrifices are also offered for its removal. Booley Town, at the southern entrance, with another on the opposite side, and the neighbouring villages, are under the King of Benin.

Continuing the survey, they next stopped at the Old Calabar, the most considerable river, as regards magnitude, that came under their observation. Its entrance is a vast expanse of water, into which two large rivers are discharged ; it is nine miles across, but the rush of water is, nevertheless, very considerable. The traders ascend about thirty miles. Time only admitted of examining the bar, when they proceeded to Rio del Rey, passing Backassay Gap, a creek that communicates with Old Calabar, but is not navigable for vessels of burden. The Rio del Rey, though giving an idea of considerable magnitude, on being approached is in reality but an open shallow bay, with several creeks branching from it ; one, larger than the rest, is four miles and a half wide at the entrance, but rapidly decreases into a narrow channel. The shores are thickly peopled, the inhabitants living chiefly on fish ; the villages are large and built on the skirts of the bay.

Between the rivers Benin and Old Calabar the coast is uniformly low and flat, unbroken, even in the distance, by the slightest elevation, and closely intersected by rivers. From Cape Formosa to the river Benin, a distance of one hundred and sixteen miles, there are not fewer than eleven of some magnitude ; while eastward of Formosa, as far as the Bonny, are twelve more,—making twenty-three rivers in a line of coast of two hundred and forty miles. The size of these rivers indicate that they flow from a considerable distance in the interior, while the rapidity of the stream is a proof of a mighty source. It seems impossible, also, from the formation of the coast, that they can run parallel to each other ; they must, therefore, radiate from some central district,

and divide and unite, as it is known that the Benin does with the Warree, and, as reported by the natives, with the New Calabar. The communication between the Bonny and the Andony has also been established.

The base of the Camaroon mountains occupies a space of twenty miles in diameter, the highest peak being thirteen thousand feet above the sea, covered with trees of luxuriant growth nearly to the summit ; one bare brown ridge alone appears like lava. More distant is the Rumley Range, formed of rugged masses, and seen upwards of sixty miles. Qua Mountain, sixty-four miles N.W. of Camaroon, is also a stupendous elevation ; it was seen at a distance of nearly eighty miles.

From Rio del Rey, the Barracouta returned to Fernando Po, and thence proceeded to Sierra Leone, where she rejoined the Leven. An officer and party, that had been previously despatched in the African steam-vessel to survey the river Gambia, which they ascended as far as Macarthy's Island, one hundred and eighty miles from its mouth, rejoined the squadron at Sierra Leone, and they all sailed in company for England, where, after touching at Porto Praya, they arrived, after an absence of five years, during which the expedition had traced about thirty thousand miles of coast-line.

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II.—*Account of the Mahavillaganga* ; abridged from the Journal of an Excursion to explore it, undertaken, under Instructions from Government, by R. Brooke, Esq., Master Attendant at Trincomalie. Colombo. 1833.

THE Mahavillaganga, well known as the largest river in the Island of Ceylon, takes its rise from the mountains in the Kandy country, and after encircling the city of Kandy, flows in an easterly direction almost as far as Binteune, when it bends suddenly to the northward, and after running some distance, divides into two streams, one falling into the great bay of Trincomalie, the other, which is called the Virgel, into the sea, twenty-five miles southward of Trincomalie.

In taking a cursory view of the Mahavillaganga, and the country through which it flows, it appears that the river from Kandy is a mountain torrent till within seven or eight miles above Bintenne, whence it flows in a free course to Calinga, with the exception of a slight interruption twenty-eight miles below Bintenne. The width of the river from the termination of the torrent part to Calinga is from a hundred and fifty to two hundred and fifty yards, and the course is shallow during the dry season, (from one to two feet deep,) but rising twenty-five and thirty feet at the period of the freshes.